

Wetland and Waterbody Delineation

**PORT OF EAST ST. LOUIS
EAST ST. LOUIS, ILLINOIS**

October 2013

Prepared for:

TERRA ENGINEERING, LTD.

SCI No. 2013-3194.30

October 4, 2013

Mr. George Ghareeb
Terra Engineering, Ltd.
401 N. Main Street, Suite 1130
Peoria, Illinois 61602

RE: Wetland and Waterbody Delineation
Port of East St. Louis
East St. Louis, Illinois
SCI No. 2013-3194.30

Dear Mr. Ghareeb:

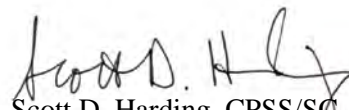
We are pleased to submit our report entitled *Wetland and Waterbody Delineation – PORT OF EAST ST. LOUIS – EAST ST. LOUIS, ILLINOIS*, dated October 2013. Our field investigation identified three emergent wetlands, a swale, and a roadside ditch within and adjacent to the project boundaries. As described in our September 13, 2013 proposal, our field investigation focused on the areas that were suspect for wetland characteristics within and adjacent to the project site boundary since the project site is located within the Mississippi River 100-year floodplain. The wetlands identified by SCI may be considered waters of the United States as stated under the definitions described in Section 328.3 of the Code of Federal Regulations (33 CFR). Any impact to waters of the United States, including draining, filling, piping, rerouting, crossing, and discharging into, will require a Section 404 Permit from the U.S. Army Corps of Engineers (USACE) and a Section 401 Water Quality Certification from the Illinois Environmental Protection Agency (IEPA). However, the USACE has the sole authority to determine if any of the features we identified would be under their jurisdiction. SCI is available to assist with the Section 404 and Section 401 Permit application as you advance in your planning of the project.

If you have any questions or concerns, please contact Scott Harding at (618) 206-3041 or sharding@sciengineering.com.

Respectfully,

SCI ENGINEERING, INC.


Michelle Goodare
Wetland Scientist


Scott D. Harding, CPSS/SC
Vice President

MMG/SDH/tlw

Enclosure

One copy and one electronic version submitted.

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Wetland and Waterbody Delineation

PORT OF EAST ST. LOUIS EAST ST. LOUIS, ILLINOIS

1.0 INTRODUCTION

SCI Engineering, Inc. (SCI) was retained by Mr. George Ghareeb of Terra Engineering, Ltd. to conduct a wetland delineation on the referenced site. The scope of the study included performing site reconnaissance to characterize the soils, vegetation, and hydrology for delineation of wetlands and waterbodies. Our services were provided in general accordance with our proposal dated September 13, 2013.

The project site is approximately 13.5 acres. In May/June, 2012, an SCI Wetland Scientist performed a field investigation of the northern portion of the project site to delineate the extent of existing waterbodies and wetlands within and adjacent to the northern project limits as noted in Figure 3. No wetlands were identified within the northern portion of the project site. On September 18, 2013, an SCI Wetland Scientist performed a field investigation of the southern portion of the project site to delineate the extent of existing waterbodies and wetlands within and adjacent to the southern project limits also noted in Figure 3. Within and adjacent to the southern portion of the project site, there are three emergent wetland areas totaling approximately 3.1 acres, a swale, and a roadside ditch totaling approximately 0.6 acres. Based on their physical characteristics and proximity to the Mississippi River, these areas could be considered waters of the United States as identified under the definitions described in Section 328.3 of the *Code of Federal Regulations* (33CFR). Any impact to waters of the United States, including draining, filling, piping, rerouting, crossing, and discharging into will require a Section 404 Permit from the U.S. Army Corps of Engineers (USACE) and a Section 401 Water Quality Certification from the Illinois Environmental Protection Agency (IEPA).

2.0 SITE LOCATION

The project site is located north of Monsanto Avenue and west of IL Route 3 just south of Interstates 55/70/64 and the Poplar Street Bridge convergence in East St. Louis, St. Clair County, Illinois. There is a defunct water treatment facility west of the project limits that is noted in the NWI database as a palustrine, unconsolidated bottom, intermittently exposed, excavated (PUBGx) wetland; however, this water treatment facility is outside the project limits and will not be impacted. The project area is an approximately 75-foot to a 250-foot wide corridor that runs north on the west side of IL Route 3 then turns west along an elevated railroad line to the Metro-East Sanitary District levee. The proposed project will consist of construction of an access road to serve the future Port of East St. Louis, starting from

IL Route 3 on the southern portion of the property and running north then west along an elevated rail line through the project site (Figure 3). Adjacent properties are a mix of undeveloped areas and entertainment/commercial/industrial uses. All project development will be within Section 23, Township 2 North, Range 10 West. The *Vicinity and Topographic Map* is enclosed as Figure 1.

3.0 SOIL SURVEY AND TOPOGRAPHIC RESEARCH

According to the Web Soil Survey (WSS), prepared by the Natural Resources Conservation Service (NRCS), the project site is mapped as Urban Land (533) soil type. This soil type is not listed as a hydric soil on the *NRCS National Hydric Soils List: Hydric Soils of the United States* or the St. Clair County Hydric Soils List. The project site is located within the Mississippi River 100-year floodplain.

A U.S. Geological Survey (USGS) Topographic Map and National Wetlands Inventory (NWI) map were reviewed for information concerning the project site. The USGS map is a reproduction of a portion of the USGS topographic map for the *Granite City, Illinois-Missouri* quadrangle dated 1993 (photo-revised 1998) and the *Cahokia, Illinois-Missouri* quadrangle, dated 1993 (photo-revised 1998). Copies of the USGS topographic and NWI maps are enclosed as Figures 1 and 2, respectively. According to these maps, the topography of the project site is relatively level and drains toward the north-northwest. These maps indicate the presence of two large palustrine, emergent, seasonally flooded (PEMC) wetland areas within the southern portion of the project site. Surface topography observed on the date of the field investigation appeared to generally coincide with the topography depicted on the USGS map. It was evident that the majority of the project site has been previously disturbed from historical construction of IL Route 3, highways to the north and commercial/industrial development surrounding the project site. In addition, gravel fill has been placed for an access road that bisects the project site going east-west in the southern portion of the project site near the row of warehouses; however, the gravel road does not extend the full width of the property. This gravel road has three pipe culverts that allow water movement from south to north through wetlands as discussed below and noted in Figure 3.

4.0 SITE RECONNAISSANCE AND CONDITION SUMMARY

Since the site is located east of the Mississippi River and within the 100-year floodplain and based on historical topographic maps and the NWI maps, suspect areas on the site were explored for wetland and waterbody characteristics. A photographic summary of the representative site conditions is included as Appendix A. Included in Appendix B are the *Wetland Determination Data Forms - Midwest Region* for the suspect wetland areas. The conditions summarized below are mapped on the *Wetland Delineation and Aerial Photograph*, enclosed as Figure 3.

Our site investigation confirmed the presence of the suspected wetlands noted in the NWI database and topographic maps. These two large wetland areas further delineate down into three smaller connected emergent wetlands. In addition to these three emergent wetlands, a swale was identified that drains into one of the wetlands and a roadside ditch was also identified along IL Route 3 (Figure 3).

The roadside ditch runs along IL Route 3 and flows north. The upland slopes of the ditch are fill material from historical construction of IL Route 3 and from the entrance road to the water treatment facility to the northwest. The roadside ditch is approximately 0.6 acres and is entirely within the project boundary limits. Vegetation consists of nearly 100 percent of *Typha angustifolia* (narrow-leaf cattail). Hydrology is provided by the naturally occurring high water table and by stormwater runoff. The roadside ditch supported evidence of hydrologic indicators, hydrophytic vegetation and hydric soils. The roadside ditch did not appear to be mowed during the 2013 growing season. It is very common for this ditch to overflow and cause flooding at the intersection of IL Route 3 and Mississippi Avenue stoplight.

Wetlands A, B, and C make up the two large areas identified in the NWI database. Wetland A is approximately 0.3 acres and is outside the project boundary limits. Wetland B is approximately 0.5 acres and is also outside the project boundary limits. However, Wetland A drains into Wetland B via a pipe culvert. Then, Wetland B drains into the larger Wetland C via a swale. Wetland C is approximately 2.4 acres total with 2.0 acres within the project boundary limits. Freshwater snails were observed in Wetland C. The swale begins off site at the southern end of the project limits and then drains north into Wetland C on site via a pipe culvert. Wetlands A, B, and C and the swale all supported various wetland vegetation which consisted of: *Typha angustifolia* (narrow-leaf cattail), *Asclepias incarnata* (swamp milkweed), *Carex alopecoidea* (fox-tail sedge) and *Salix nigra* (black willow). Site hydrology is provided by the naturally occurring high water table and by adjacent stormwater runoff. Although it was evident that the Wetland A, B, and C areas have been mowed during the 2013 growing season, all delineated areas clearly supported evidence of hydrophytic vegetation, hydrologic indicators and hydric soils (Appendix B). The roadside ditch had not been mowed. Wetlands A, B, and C are all connected to each other.

In May/June 2012 SCI conducted a wetland delineation on the northern portion of the project site. Five data points collected then showed no wetlands, only uplands within this northern portion of the project site. This portion of the project site begins near the water treatment facility, runs north then turns west along an elevated rail line (Figure 3). The 2012 wetland determination data forms for these five data points are also included in Appendix B.

5.0 CONCLUSION

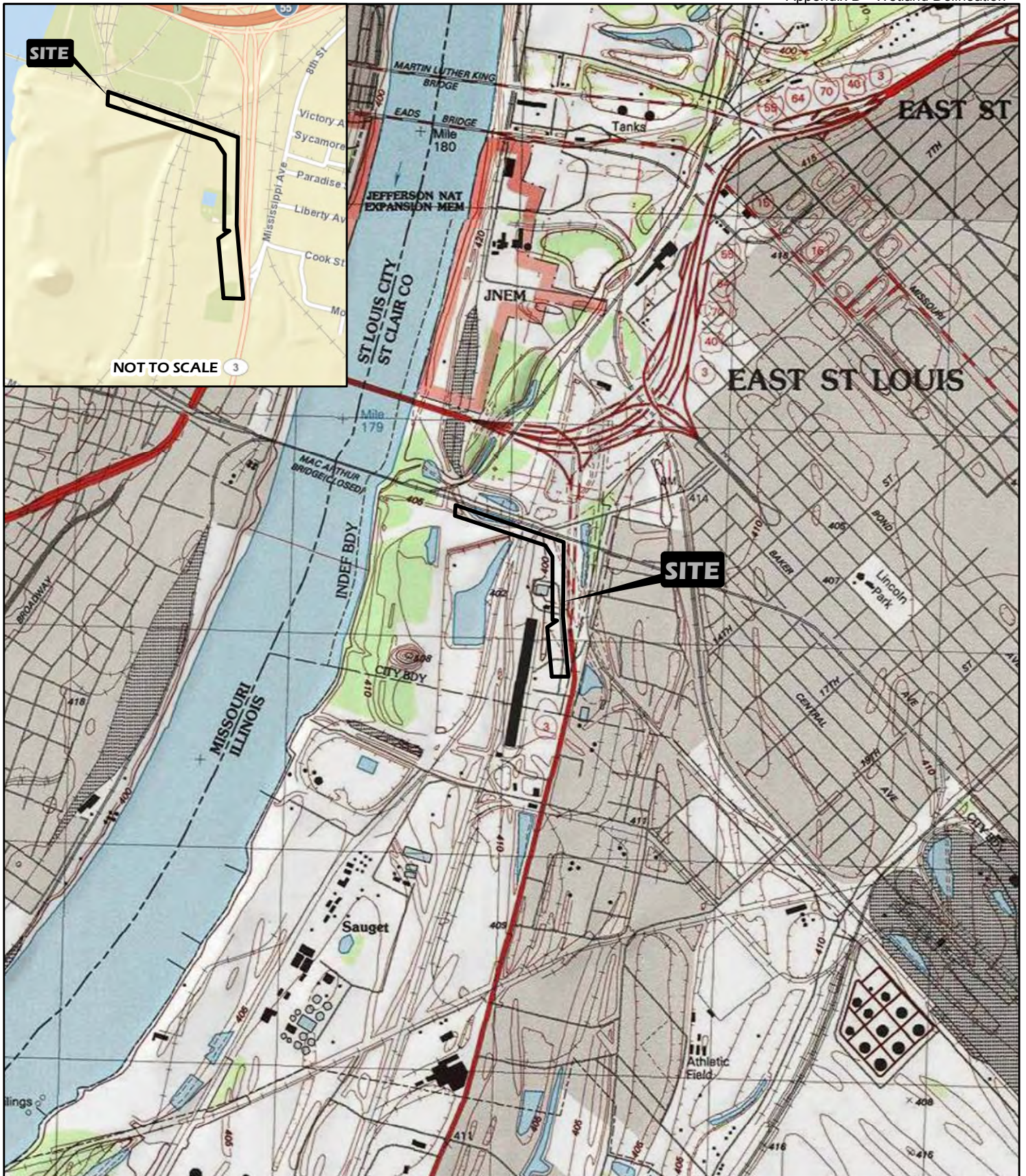
Based on our May/June 2012 and September 2013 field investigation, SCI confirmed the presence of the suspected wetlands noted in the NWI database and topographic maps in the southern portion of the project site. These two large wetland areas further delineate down into three smaller connected emergent wetlands. These three wetlands could be considered under the jurisdiction of the USACE due to their location within the 100-year floodplain and that they meet all three wetland determination criteria. In addition to these three emergent wetland areas, a swale and a roadside ditch were also identified. No wetlands were identified within the northern portion of the project site. If any identified areas are determined to be under the jurisdiction of the USACE, a permit would be required before development can occur. The USACE has the sole authority to determine if any of the features identified would be under their jurisdiction.



The USACE requires a Section 404 Permit for the development of a site that impacts jurisdictional waterbodies. Likewise, a Section 401 Water Quality Certification from the IEPA is typically required for a project that requires a Section 404 Permit. The USACE generally requires a preliminary development plan along with an impact assessment before issuing any formal authorization regarding a permit. We are available to assist you with satisfying the requirements of the USACE and/or IEPA as you advance in your planning for this development.

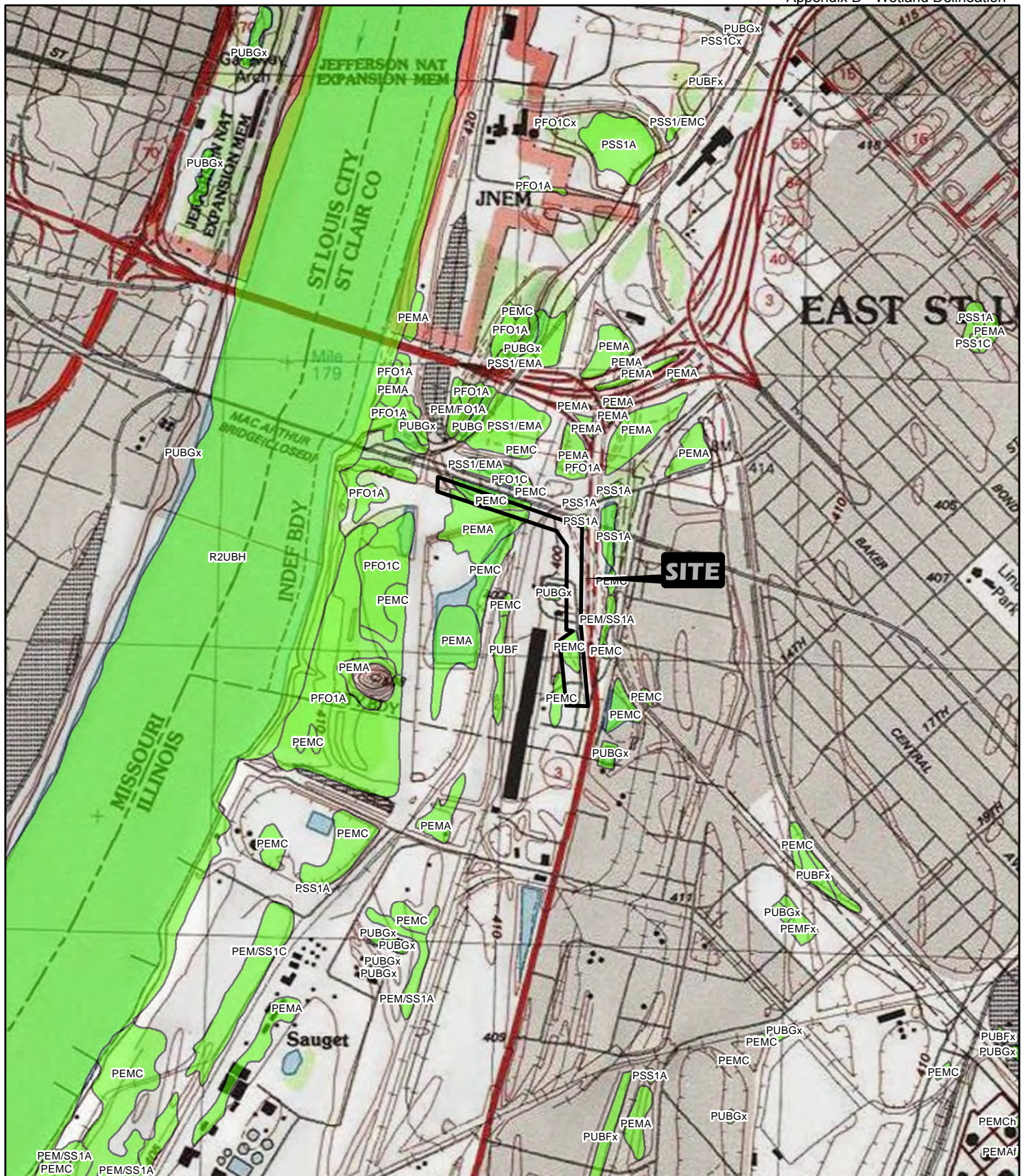
6.0 LIMITATION




This report has been prepared for the exclusive use of Terra Engineering. SCI is not responsible for independent conclusions or recommendations made by others. Furthermore, written consent must be provided by SCI should anyone other than our client wish to excerpt, or rely on the contents of this report. The findings of this report are valid as of the present date of the delineation. SCI is not responsible for surveys, calculations, or plans that were prepared by others.

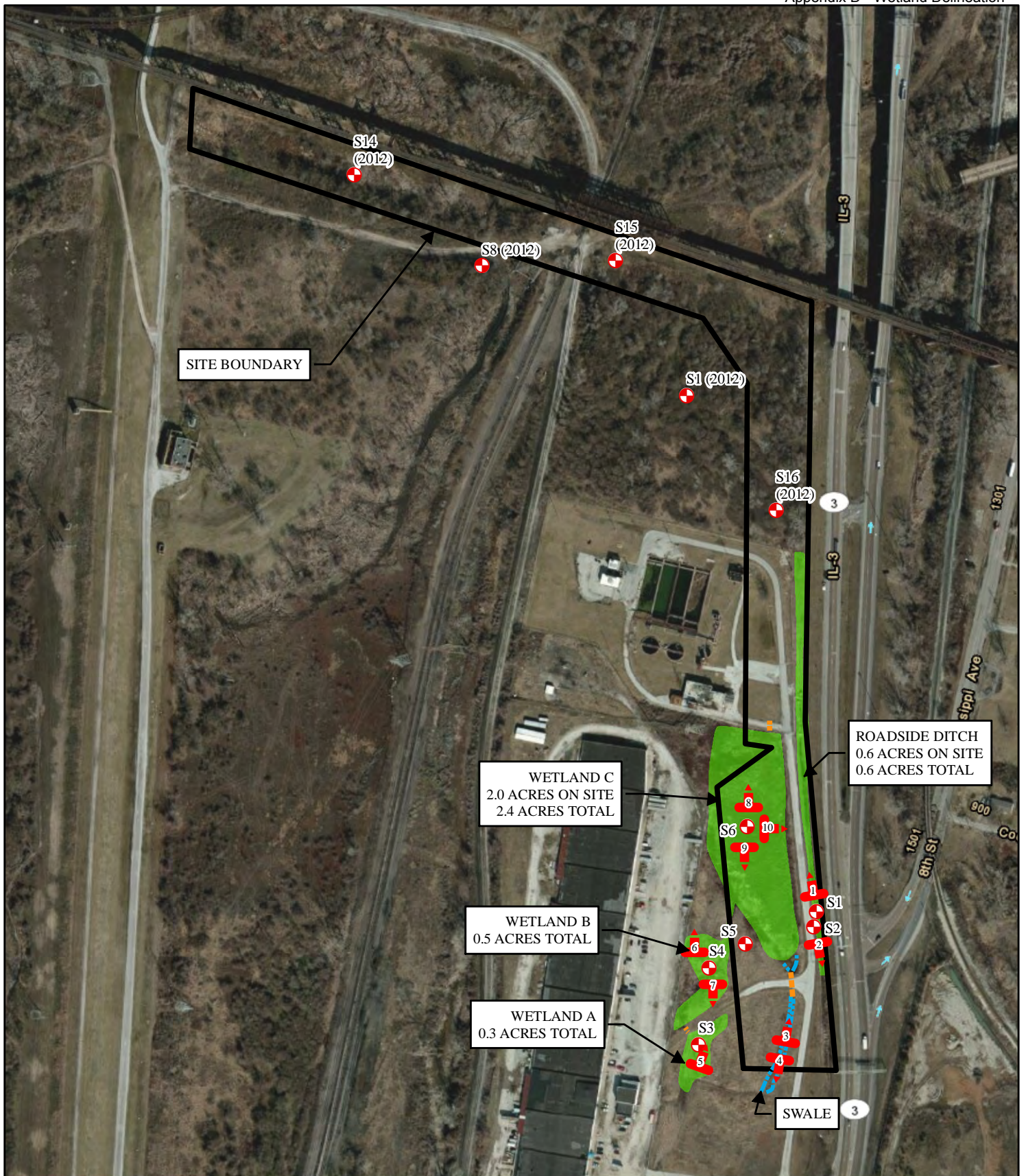
Changes in surface and subsurface conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, the broadening of knowledge, or other reasons. Accordingly, the findings of this report may be invalidated in whole or in part by changes outside our control.








	PROJECT NAME PORT OF EAST SAINT LOUIS EAST SAINT LOUIS, ILLINOIS			GENERAL NOTES/LEGEND USGS TOPOGRAPHIC MAP CAHOKIA, ILLINOIS QUADRANGLE DATED 1998 10' CONTOURS		 SCALE 1" = 2000' FIGURE 1	
	VICINITY AND TOPOGRAPHIC MAP						
	DRAWN BY RCV		DATE	JOB NUMBER			
	CHECKED BY MMG		10/2013	2013-3194.30			



	PROJECT NAME PORT OF EAST SAINT LOUIS EAST SAINT LOUIS, ILLINOIS			GENERAL NOTES/LEGEND  NATIONAL WETLAND INVENTORY DATA OBTAINED FROM www.fws.gov .	
	NATIONAL WETLAND INVENTORY MAP				
	DRAWN BY RCV	DATE 10/2013	JOB NUMBER 2013-3194.30	USGS TOPOGRAPHIC MAP CAHOKIA, ILLINOIS QUADRANGLE DATED 1998 10' CONTOURS	
	CHECKED BY MMG			SCALE 1" = 1500' FIGURE 2	



	PROJECT NAME			GENERAL NOTES/LEGEND  INDICATES APPROXIMATE SOIL BORING LOCATION  INDICATES APPROXIMATE CULVERT LOCATION  INDICATES APPROXIMATE LOCATION AND DIRECTION OF PHOTOGRAPH AERIAL PHOTOGRAPH OBTAINED FROM ARCGIS ONLINE. DIMENSIONS AND LOCATIONS ARE APPROXIMATE; ACTUAL MAY VARY. DRAWING SHALL NOT BE USED OUTSIDE THE CONTEXT OF THE REPORT FOR WHICH IT WAS GENERATED.	 SCALE 1" = 350' FIGURE 3
	PORT OF EAST SAINT LOUIS EAST SAINT LOUIS, ILLINOIS				
	WETLAND DELINEATION AND AERIAL PHOTOGRAPH				
	DRAWN BY	RCV	DATE	JOB NUMBER	
	CHECKED BY	MMG	10/2013	2013-3194.30	

Appendix A



Photo 1. Roadside ditch at S1 facing north



Photo 2. Roadside ditch at S1 facing south



Photo 3. Center of swale, facing north



Photo 4. Center of swale, facing south



Photo 5. Wetland 1 at S3 facing north



Photo 6. Wetland 2 at S4 facing north from center



Photo 7. Wetland 2 at S4 facing south from center



Photo 8. Wetland 3 at S6 facing north from center



Photo 9. Wetland 3 at S6 facing south from center



Photo 10. Wetland 3 at S6 facing east from center

Appendix B

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site:	Port of East St. Louis	City/County:	East St. Louis; St. Clair	Sampling Date:	05-08-2012
Applicant/Owner:	Slay Industries	State:	Illinois	Sampling Point:	S1
Investigator(s):	SCI Engineering, Inc.	Section, Township, Range:		S23 T2N R10W	
Landform (hillslope, terrace, etc.):	_____	Local relief (concave, convex, none):		_____	
Slope (%):	_____	Lat:	_____	Long:	_____
Soil Map Unit Name:	_____	NW1 classification:		_____	
Are climatic/hydrologic conditions on the site typical for this time of year?				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)	
Are Vegetation <u>N</u> , Soil <u>Y</u> , or Hydrology <u>N</u> significantly disturbed?				Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic?				(If needed, explain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Area of fill.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species across all Strata: <u>3</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>33</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species <u>90</u> x3 = <u>270</u> FACU species <u>30</u> x4 = <u>120</u> UPL species _____ x5 = _____ Column Totals: <u>120</u> (A) <u>390</u> (B) Prevalence Index = B/A = <u>3.25</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Lonicera maackii</u>	50	X	NI	
2. _____				
3. _____				
_____ = Total Cover				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: _____)				
1. <u>Sorghum halepense</u>	25	X	FACU	
2. <u>Rumex crispus</u>	15		FAC	
3. <u>Galium aparine</u>	5		FACU	
4. <u>Asclepias syriaca</u>	10		NI	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Poa pratensis</u>	75	X	FAC	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				Hydrophytic Vegetation Present?
Remarks: (Include photo numbers here or on a separate sheet.)				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

SOIL

Sampling Point: S1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
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Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: Soil too rocky for soil sample (fill soils)

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>				<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D2) <input type="checkbox"/> FAC-Neutral Test (D5)			

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>≥2</u> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>≥2</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site:	Port of East St. Louis	City/County:	East St. Louis; St. Clair	Sampling Date:	05-08-2012
Applicant/Owner:	Slay Industries	State:	Illinois	Sampling Point:	S8
Investigator(s):	SCI Engineering, Inc.		Section, Township, Range:		S23 T2N R10W
Landform (hillslope, terrace, etc.):			Local relief (concave, convex, none):		
Slope (%):		Lat:		Long:	
Soil Map Unit Name:			NW1 classification:		
Are climatic/hydrologic conditions on the site typical for this time of year?				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)	
Are Vegetation <u>Y</u> , Soil <u>N</u> , or Hydrology <u>Y</u> significantly disturbed?				Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic?				(If needed, explain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Fill area.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species that are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species across all Strata: <u>2</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>50</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species <u>90</u> x3 = <u>270</u> FACU species <u>30</u> x4 = <u>120</u> UPL species _____ x5 = _____ Column Totals: <u>120</u> (A) <u>390</u> (B) Prevalence Index = B/A = <u>3.25</u>
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Lonicera maackii</u>	50	X	NI	
2. _____				
3. _____				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Sorghum halepense</u>	25		FACU	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. <u>Rumex crispus</u>	15		FAC	
3. <u>Galium aparine</u>	5		FACU	
4. <u>Asclepias syriaca</u>	10		NI	
5. <u>Poa pratensis</u>	75	X	FAC	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: S8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>Surface</u> Remarks: Soil rocky for soil sample (fill soils)	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	---

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>				<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D2) <input type="checkbox"/> FAC-Neutral Test (D5)			
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>>15</u> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>>15</u> (includes capillary fringe)			Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks: Just south of access road					

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site:	Port of East St. Louis	City/County:	East St. Louis; St. Clair	Sampling Date:	06-19-2012
Applicant/Owner:	Slay Industries	State:	Illinois	Sampling Point:	S14
Investigator(s):	SCI Engineering, Inc.		Section, Township, Range:		S23 T2N R10W
Landform (hillslope, terrace, etc.):			Local relief (concave, convex, none):		
Slope (%):		Lat:		Long:	
Soil Map Unit Name:			NW1 classification:		
Are climatic/hydrologic conditions on the site typical for this time of year?				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)	
Are Vegetation <u>N</u> , Soil <u>Y</u> , or Hydrology <u>N</u> significantly disturbed?				Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic?				(If needed, explain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Area is located south of an existing rail bed and appears to have been filled in the past.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species across all Strata: <u>4</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>75</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL species _____ x1 = _____ FACW species _____ x2 = _____ FAC species <u>105</u> x3 = <u>315</u> FACU species <u>60</u> x4 = <u>240</u> UPL species _____ x5 = _____ Column Totals: <u>165</u> (A) <u>555</u> (B) Prevalence Index = B/A = <u>3.37</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				Hydrophytic Vegetation Indicators: X Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: _____)				
1. <u>Poa pratensis</u>	40	Y	FAC	
2. <u>Conyza canadensis</u>	30	Y	FAC	
3. <u>Galium aparine</u>	10		FAC	
4. <u>Ambrosia trifida</u>	25	Y	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Festuca subverticillata</u>	60	Y	FACU	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: S14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10 YR 4/4	40					sic	
	10 YR 3/3	60						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
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Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>8</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Soil likely fill material based on observed characteristics.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>				<u>Secondary Indicators (minimum of two required)</u>	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D2) <input type="checkbox"/> FAC-Neutral Test (D5)			
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>>8</u> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>>8</u> (includes capillary fringe)				Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					
Remarks:					

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site:	Port of East St. Louis	City/County:	East St. Louis; St. Clair	Sampling Date:	06-19-2012
Applicant/Owner:	Slay Industries	State:	Illinois	Sampling Point:	S15
Investigator(s):	SCI Engineering, Inc.	Section, Township, Range:		S23 T2N R10W	
Landform (hillslope, terrace, etc.):	_____	Local relief (concave, convex, none):		_____	
Slope (%):	_____	Lat:	_____	Long:	_____
Soil Map Unit Name:	_____	NW1 classification:		_____	
Are climatic/hydrologic conditions on the site typical for this time of year?				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)	
Are Vegetation <u>N</u> , Soil <u>Y</u> , or Hydrology <u>N</u> significantly disturbed?				Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic?				(If needed, explain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Area is located along access road near northern boundary of the subject site.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Populus deltoides</u>	10		FACW	Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species across all Strata: <u>4</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>50</u> (A/B)
2. <u>Acer saccharinum</u>	15		FACW	
3. <u>Acer negundo</u>	15		FACW	
4. _____				
5. _____				
40 = Total Cover				Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL species _____ x1 = _____ FACW species <u>40</u> x2 = <u>80</u> FAC species <u>80</u> x3 = <u>240</u> FACU species <u>50</u> x4 = <u>200</u> UPL species _____ x5 = _____ Column Totals: <u>170</u> (A) <u>520</u> (B) Prevalence Index = B/A = <u>3.06</u> Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
35 = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. <u>Lonicera maackii</u>	35	Y	NI	
2. _____				
3. _____				
4. _____				
5. _____				
35 = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Poa pratensis</u>	50	Y	FAC	
2. <u>Conyza canadensis</u>	30	Y	FAC	
3. <u>Sorghum halepense</u>	40	Y	FACU	
4. <u>Asclepias syriaca</u>	10		FACU	
5. _____				
130 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)			Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

SOIL

Sampling Point: S14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
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Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>Surface</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: Unable to obtain soil sample based on rocky conditions.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>				<u>Secondary Indicators (minimum of two required)</u>			
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D2) <input type="checkbox"/> FAC-Neutral Test (D5)					

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>≥2</u> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>≥2</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site:	Port of East St. Louis	City/County:	East St. Louis; St. Clair	Sampling Date:	06-19-2012
Applicant/Owner:	Slay Industries	State:	Illinois	Sampling Point:	S16
Investigator(s):	SCI Engineering, Inc.	Section, Township, Range:	S23 T2N R10W		
Landform (hillslope, terrace, etc.):	_____	Local relief (concave, convex, none):	_____		
Slope (%):	_____	Lat:	_____	Long:	_____
Soil Map Unit Name:	_____	NWI classification:	_____		
Are climatic/hydrologic conditions on the site typical for this time of year?				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> (If no, explain in Remarks.)	
Are Vegetation <u>N</u> , Soil <u>Y</u> , or Hydrology <u>N</u> significantly disturbed?				Are "Normal Circumstances" present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Are Vegetation <u>N</u> , Soil <u>N</u> , or Hydrology <u>N</u> naturally problematic?				(If needed, explain any answers in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Point taken near the northeastern boundary of the subject site.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species across all Strata: <u>4</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>50</u> (A/B)
1. <i>Populus deltoides</i>	5		FACW	
2. <i>Acer saccharinum</i>	15		FACW	
3. _____				
4. _____				
20 = Total Cover				Prevalence Index Worksheet: Total % Cover of: Multiply by: OBL species _____ x1 = _____ FACW species <u>40</u> x2 = <u>80</u> FAC species <u>80</u> x3 = <u>240</u> FACU species <u>50</u> x4 = <u>200</u> UPL species _____ x5 = _____ Column Totals: <u>170</u> (A) <u>520</u> (B) Prevalence Index = B/A = <u>3.06</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. <i>Lonicera maackii</i>	25	Y	NI	
2. _____				
3. _____				
25 = Total Cover				
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <i>Poa pratensis</i>	35	Y	FAC	
2. <i>Conyza canadensis</i>	35	Y	FAC	
3. <i>Sorghum halepense</i>	30	Y	FACU	
4. <i>Asclepias syriaca</i>	10		FACU	
5. <i>Rumex crispus</i>	15		FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
125 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: S16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10 YR 3/2						sic1	
	10 YR 3/3							

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
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Restrictive Layer (if observed): Type: <u>Rock</u> Depth (inches): <u>6</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks: Rocky soil conditions observed at approximately 6 inches below surface. The area has likely been filled in the past based on site observations.

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u>				<u>Secondary Indicators (minimum of two required)</u>			
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D2) <input type="checkbox"/> FAC-Neutral Test (D5)					

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>None</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>>6</u> Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>>6</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Port of East St. Louis-City of East St. Louis City/County: East St. Louis, St. Clair Sampling Date: 9/18/2013
Applicant/Owner: City of East St. Louis State: IL Sampling Point: S1
Investigator(s): M. Goodare & M. Eldridge Section, Township, Range: S23 T2N R10W
Landform (hillslope, terrace, etc.): Mississippi river floodplain Local relief (concave, convex, none): flat
Slope (%): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Urban Land (533) NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:

S1 is located within a roadside ditch along Route 3. Hydrology provided by higher water table and roadside stormwater runoff.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			

Herb Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha angustifolia</u>	<u>100%</u>	<u>Yes</u>	<u>OBL</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
_____ = Total Cover			

Woody Vine Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
_____ = Total Cover			

Dominance Test worksheet:

Number of Dominant Species
That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant
Species Across All Strata: 1 (B)

Percent of Dominant Species
That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>100%</u>	x1 = <u>1</u>
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species _____	x4 = _____
UPL species _____	x5 = _____
Column Totals: <u>1.00</u> (A)	<u>1</u> (B)

Prevalence Index = B/A = 1.00

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is $\leq 3.0^1$
- ____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic
Vegetation**

Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/2	80						peat layer
2-18	10YR 5/3		10YR 5/3	20	RM	M		organic layer

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
---	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____		Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Surface layer of peat on top of very dark brown, saturated, high organic content soil showing redox features.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)			

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Historical photos show as a wet area.

Remarks:
Saturation from surface to 2-3 inches down.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Port of East St. Louis-City of East St. Louis City/County: East St. Louis, St. Clair Sampling Date: 9/18/2013
 Applicant/Owner: City of East St. Louis State: IL Sampling Point: S2
 Investigator(s): M. Goodare & M. Eldridge Section, Township, Range: S23 T2N R10W
 Landform (hillslope, terrace, etc.): Mississippi river floodplain Local relief (concave, convex, none): flat
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Urban Land (533) NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>x</u>
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
 S2 is located upslope of S1 on a roadside ditch along Route 3.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			

Herb Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Festuca arundinacea</i>	50%	Yes	UPL
2. <i>Pooidaea spp.</i>	40%	Yes	UPL
3. <i>Taraxacum officinale</i>	10%	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
_____ = Total Cover			

Woody Vine Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
_____ = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species <u>10%</u>	x4 = <u>0.4</u>
UPL species <u>90%</u>	x5 = <u>4.5</u>
Column Totals: <u>1.00</u> (A)	<u>4.9</u> (B)

Prevalence Index = B/A = 4.90

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

____ 2-Dominance Test is >50%

____ 3-Prevalence Index is ≤3.0¹

____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/2	80						peat layer
2-18	10YR 5/3		10YR 5/3	20				organic layer

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> 2 cm Muck (A10)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
---	--

Remarks:
Surface layer of peat on top of very dark brown, saturated, high organic content soil showing redox features.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is required: check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)	

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Upslope of roadside ditch.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Port of East St. Louis-City of East St. Louis City/County: East St. Louis, St. Clair Sampling Date: 9/18/2013
 Applicant/Owner: City of East St. Louis State: IL Sampling Point: S3
 Investigator(s): M. Goodare & M. Eldridge Section, Township, Range: S23 T2N R10W
 Landform (hillslope, terrace, etc.): Mississippi river floodplain Local relief (concave, convex, none): flat
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Urban Land (533) NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation Y, Soil N, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Hydrology provided by higher water table and stormwater runoff. Wetland A has been mowed this season. The area drains into Wetland B which drains into Wetland C. Two fill

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Salix nigra</u>	<u>100%</u>	<u>Yes</u>	<u>OBL</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	<u>100%</u> = Total Cover		

Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
	_____ = Total Cover		

Herb Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Typha angustifolia</u>	<u>95%</u>	<u>Yes</u>	<u>OBL</u>
2. <u>Asclepias incarnata</u>	<u>5%</u>	<u>No</u>	<u>OBL</u>
3. <u>Carex alopecoidea</u>	<u>3%</u>	<u>No</u>	<u>FACW</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
	<u>103%</u> = Total Cover		

Woody Vine Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species
 That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant
 Species Across All Strata: 2 (B)

Percent of Dominant Species
 That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>200%</u>	x1 = <u>2</u>
FACW species <u>3%</u>	x2 = <u>0.06</u>
FAC species _____	x3 = _____
FACU species _____	x4 = _____
UPL species _____	x5 = _____
Column Totals: <u>2.03</u> (A)	<u>2.06</u> (B)

Prevalence Index = B/A = 1.01

Hydrophytic Vegetation Indicators:

- X 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0¹
- ____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation

Present? Yes X No _____

Remarks: (Include photo numbers here or on a separate sheet.)
 Area has been mowed during the 2013 season.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	10						peat layer
2-18	10Y 2.5/1	80	10YR 5/3	10	RM	M		gley organic layer with redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input checked="" type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
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³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____		Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Surface layer of peat on top of very dark gley, moist, high organic content soil showing redox features.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)			

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Moist gley.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Port of East St. Louis-City of East St. Louis City/County: East St. Louis, St. Clair Sampling Date: 9/18/2013
 Applicant/Owner: City of East St. Louis State: IL Sampling Point: S4
 Investigator(s): M. Goodare & M. Eldridge Section, Township, Range: S23 T2N R10W
 Landform (hillslope, terrace, etc.): Mississippi river floodplain Local relief (concave, convex, none): flat
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Urban Land (533) NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation Y, Soil N, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Hydrology provided by higher water table and stormwater runoff. Area has been mowed this season. The area drains into Wetland C. Two fill roads have been placed across

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
1. <u>Salix nigra</u>	<u>100%</u>	<u>Yes</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	<u>100%</u> = Total Cover	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>200%</u></td> <td>x1 = <u>2</u></td> </tr> <tr> <td>FACW species <u>3%</u></td> <td>x2 = <u>0.06</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>2.03</u> (A)</td> <td><u>2.06</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.01</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>200%</u>	x1 = <u>2</u>	FACW species <u>3%</u>	x2 = <u>0.06</u>	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: <u>2.03</u> (A)	<u>2.06</u> (B)	Prevalence Index = B/A = <u>1.01</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>200%</u>	x1 = <u>2</u>																			
FACW species <u>3%</u>	x2 = <u>0.06</u>																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: <u>2.03</u> (A)	<u>2.06</u> (B)																			
Prevalence Index = B/A = <u>1.01</u>																				
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Typha angustifolia</u>	<u>95%</u>	<u>Yes</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <u>X</u> 1-Rapid Test for Hydrophytic Vegetation <u>X</u> 2-Dominance Test is >50% <u>X</u> 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Asclepias incarnata</u>	<u>5%</u>	<u>No</u>	<u>OBL</u>																	
3. <u>Carex alopecoidea</u>	<u>3%</u>	<u>No</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
13. _____	_____	_____	_____																	
14. _____	_____	_____	_____																	
15. _____	_____	_____	_____																	
16. _____	_____	_____	_____																	
17. _____	_____	_____	_____																	
18. _____	_____	_____	_____																	
19. _____	_____	_____	_____																	
20. _____	_____	_____	_____																	
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 Area has been mowed during the dryer summer season.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	10						peat layer
2-18	10Y 2.5/1	80	10YR 5/3	10	RM	M		gley organic layer with redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input checked="" type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Coast Prairie Redox (A16) <input type="checkbox"/> Iron-Manganese Masses (F12) <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
--	--

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed): Type: _____ Depth (inches): _____		Hydric Soil Present? Yes <u> x </u> No <u> </u>
---	--	---

Remarks:
Surface layer of peat on top of very dark gley, moist, high organic content soil showing redox features.

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply)			Secondary Indicators (minimum of two required)		
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Gauge or Well Data (D9) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5)			

Field Observations: Surface Water Present? Yes <u> </u> No <u> x </u> Depth (inches): _____ Water Table Present? Yes <u> </u> No <u> x </u> Depth (inches): _____ Saturation Present? Yes <u> </u> No <u> x </u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u> X </u> No <u> </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Moist gley.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Port of East St. Louis-City of East St. Louis City/County: East St. Louis, St. Clair Sampling Date: 9/18/2013
Applicant/Owner: City of East St. Louis State: IL Sampling Point: S5
Investigator(s): M. Goodare & M. Eldridge Section, Township, Range: S23 T2N R10W
Landform (hillslope, terrace, etc.): Mississippi river floodplain Local relief (concave, convex, none): flat
Slope (%): _____ Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: Urban Land (533) NWI classification: No

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No _____		
Wetland Hydrology Present?	Yes _____ No <u>X</u>		

Remarks:
S5 is representative of upland area around Wetland A, B, and C.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			

Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
_____ = Total Cover			

Herb Stratum (Plot size: <u>5' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Festuca arundinacea</i>	70%	Yes	UPL
2. <i>Pooidaea spp.</i>	20%	Yes	UPL
3. <i>Taraxacum officinale</i>	10%	No	FACU
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
13. _____	_____	_____	_____
14. _____	_____	_____	_____
15. _____	_____	_____	_____
16. _____	_____	_____	_____
17. _____	_____	_____	_____
18. _____	_____	_____	_____
19. _____	_____	_____	_____
20. _____	_____	_____	_____
_____ = Total Cover			

Woody Vine Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
_____ = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x1 = _____
FACW species _____	x2 = _____
FAC species _____	x3 = _____
FACU species <u>10%</u>	x4 = <u>0.4</u>
UPL species <u>90%</u>	x5 = <u>4.5</u>
Column Totals: <u>1.00</u> (A)	<u>4.9</u> (B)

Prevalence Index = B/A = 4.90

Hydrophytic Vegetation Indicators:

_____ 1-Rapid Test for Hydrophytic Vegetation

_____ 2-Dominance Test is >50%

_____ 3-Prevalence Index is ≤3.0¹

_____ 4-Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

_____ Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
Area has been mowed during the dryer summer season.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/2	10						peat layer
4-18	10Y 3/1	80	10YR 3/6	10				gley organic layer with redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> 2 cm Muck (A10)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present?	Yes	No
Type: _____			
Depth (inches): _____		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks:
Surface layer of peat on top of very dark gley, moist, high organic content soil showing redox features.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:	Wetland Hydrology Present?	Yes	No
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____			
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____			
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____			
(includes capillary fringe)			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Port of East St. Louis-City of East St. Louis City/County: East St. Louis, St. Clair Sampling Date: 9/18/2013
 Applicant/Owner: City of East St. Louis State: IL Sampling Point: S6
 Investigator(s): M. Goodare & M. Eldridge Section, Township, Range: S23 T2N R10W
 Landform (hillslope, terrace, etc.): Mississippi river floodplain Local relief (concave, convex, none): flat
 Slope (%): _____ Lat: _____ Long: _____ Datum: _____
 Soil Map Unit Name: Urban Land (533) NWI classification: PEMC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No _____ (If no, explain in Remarks.)
 Are Vegetation Y, Soil N, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS -- Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No _____	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No _____
Hydric Soil Present?	Yes <u>X</u>	No _____			
Wetland Hydrology Present?	Yes <u>X</u>	No _____			

Remarks:
 Hydrology provided by higher water table, stormwater runoff and drainage from two other wetland areas (Wetland A and Wetland B). Area has been mowed this season. Two

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: <u>30' radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)																
1. <u>Salix nigra</u>	<u>100%</u>	<u>Yes</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	<u>100%</u> = Total Cover	_____	_____																	
Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)																				
1. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>200%</u></td> <td>x1 = <u>2</u></td> </tr> <tr> <td>FACW species <u>3%</u></td> <td>x2 = <u>0.06</u></td> </tr> <tr> <td>FAC species _____</td> <td>x3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x5 = _____</td> </tr> <tr> <td>Column Totals: <u>2.03</u> (A)</td> <td><u>2.06</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.01</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>200%</u>	x1 = <u>2</u>	FACW species <u>3%</u>	x2 = <u>0.06</u>	FAC species _____	x3 = _____	FACU species _____	x4 = _____	UPL species _____	x5 = _____	Column Totals: <u>2.03</u> (A)	<u>2.06</u> (B)	Prevalence Index = B/A = <u>1.01</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>200%</u>	x1 = <u>2</u>																			
FACW species <u>3%</u>	x2 = <u>0.06</u>																			
FAC species _____	x3 = _____																			
FACU species _____	x4 = _____																			
UPL species _____	x5 = _____																			
Column Totals: <u>2.03</u> (A)	<u>2.06</u> (B)																			
Prevalence Index = B/A = <u>1.01</u>																				
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
Herb Stratum (Plot size: <u>5' radius</u>)																				
1. <u>Typha angustifolia</u>	<u>95%</u>	<u>Yes</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <u>X</u> 1-Rapid Test for Hydrophytic Vegetation <u>X</u> 2-Dominance Test is >50% <u>X</u> 3-Prevalence Index is ≤3.0 ¹ _____ 4-Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Asclepias incarnata</u>	<u>5%</u>	<u>No</u>	<u>OBL</u>																	
3. <u>Carex alopecoidea</u>	<u>3%</u>	<u>No</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
13. _____	_____	_____	_____																	
14. _____	_____	_____	_____																	
15. _____	_____	_____	_____																	
16. _____	_____	_____	_____																	
17. _____	_____	_____	_____																	
18. _____	_____	_____	_____																	
19. _____	_____	_____	_____																	
20. _____	<u>103%</u> = Total Cover	_____	_____																	
Woody Vine Stratum (Plot size: <u>30' radius</u>)																				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____																
2. _____	_____	_____	_____																	
_____ = Total Cover																				

Remarks: (Include photo numbers here or on a separate sheet.)
 Area has been mowed during the dryer summer season.

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 2/1	10						peat layer
2-18	10Y 2.5/1	80	10YR 5/3	10	RM	M		gley organic layer with redox features

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Gleyed Matrix (S4)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> 2 cm Muck (A10)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):	Hydric Soil Present?	Yes	No
Type: _____			
Depth (inches): _____		<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks:
Surface layer of peat on top of very dark gley, moist, high organic content soil showing redox features.

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one is required: check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Aquatic Fauna (B13)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> True Aquatic Plants (B14)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Gauge or Well Data (D9)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:	Wetland Hydrology Present?	Yes	No
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____			
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____			
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)			

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Moist gley. Snail shells present within Wetland C.